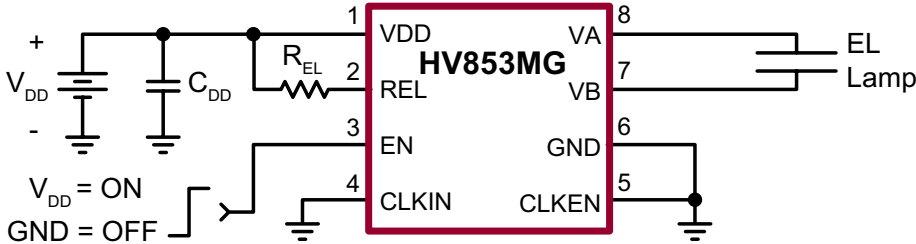


Product Summary Sheet

High Voltage, Low Noise, Inductorless EL Lamp Driver

Applications:

- Cellular phone keypad
Watches
Small handheld wireless devices
MP3 Players



Typical Application Circuit

Product Overview:

The Supertex HV853 is a high voltage, low noise EL (electroluminescent) lamp driver. It is the low noise version of the HV852 with improved EMI performance, operating over an input voltage range of 3.2V to 5.0V. It is designed to drive EL lamps of up to 1.5in², with capacitive values up to 5.3nF. The HV853 converts a low voltage DC input to a high voltage AC output across an EL lamp. A nominal regulated output voltage of ±80V is applied to the EL lamp. It uses a charge pump scheme to boost the input voltage eliminating the need for an external inductor, diode, and high voltage capacitor commonly found in conventional topologies.

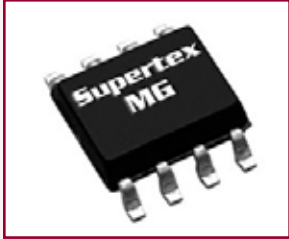
The charge pump circuit discharges its energy into an EL lamp through a high voltage H-bridge. Once the voltage reaches its regulated limit, it is turned off to conserve power. The EL lamp is then discharged to ground and the H-bridge changes state to allow the charge pump to charge the EL lamp in the opposite direction.

The EL Lamp frequency can be set either by an external resistor R_EL or by applying an external clock where the clock frequency is divided by 128 to set the EL Lamp frequency.

Table with 2 columns: Features and Benefits. Features include: Patented inductorless EL lamp driver, Requires minimal external components, Low EMI noise, 160V peak-to-peak output voltage, Output voltage regulation, Wide input voltage range of 3.2V to 5.0V, Enable function, Adjustable EL excitation frequency. Benefits include: Small circuit, low profile/height, Saves space and cost, Ideal for use in noise-sensitive applications, i.e., cell phones, Higher lamp brightness, Uniform brightness over input voltage range, Ease of design with commonly available supply voltages in watches and cell phones, Ease of control from microprocessor or other logic circuitry, Simple adjustment of lamp brightness and color.



10-Lead DFN (K7)



8-Lead MSOP (MG)



031811

High Voltage, Low Noise, Inductorless EL Lamp Driver

Ordering Information / Availability

Part Number	Package Option	Samples	Lead Time
HV853K7-G	10-Lead DFN 3x3mm body, 0.80mm height (max), 0.50mm pitch	Now	4-5 Weeks
HV853MG-G	8-Lead MSOP 3x3mm body, 0.65mm pitch	Now	4-5 Weeks

-G indicates the part is RoHS compliant (Green).



Product Contact

For any questions regarding the HV853 please contact your local area Supertex sales office, or contact the main office in the US at:

Telephone: 800-222-8888
 Fax: 408-222-4895
 EMail: mktg@supertex.com
 Website: www.supertex.com

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